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DR. COMSTOCK ON THE PATHOLOGY OF FEVER.—*ESSAY II.*

FEVERS of repletion, and indeed the remark applies to all other diseases, have been in all ages and in all countries the most prevalent. This is proved by the fact that cathartics, emetics, bloodletting and sudorifics, have been the most universal remedies. The great variety and abundance of cathartics, emetics and sudorifics, is in proof of the same position—as not having been so copiously furnished by the hand of nature without a solid reason. In discriminating between them, and in adapting the right remedy to the right disease, at the right time, and in the right dose, consists the judgment and tact of the practitioner. If these evacuants do not always cure, fewer instances of injury from them, and from any one of the class, are on record, than their universal use by the faculty and by families would lead us to suspect.

The view here taken of the prevailing diathesis of repletion, indicates a superabundance of nutrition; and this appears to be true of a majority of that class of persons who become patients to physicians, inmates of hospitals, and dwellers in alms-houses. For although the last class may be very poor, as well as some of the former, yet their poverty is often produced by dissipation, intemperance, and the want of a due parsimony in gratifying their appetites. Such have often swallowed the whole earnings of their own lives, and a part of the earnings of others. But it seems to be an incontestible fact that the quantity of blood does not depend upon the quantity of food; some very abstinent persons being plethoric, and some very high livers having a weak pulse and no marks of plethora. What, therefore, regulates the amount of circulating fluids in the bodies of different individuals, is a paradox which neither Haller nor Hunter has decided.

Connected with the subject is another paradox. For if Liewtaud be right in acknowledging that frequent hemorrhage, and bloodletting, would so relax the vascular system, and so dilate the diameter of the bloodvessels, as to increase the very difficulty which the lancet was used to relieve, we may well seek for some other remedy. It is from this constitutional standard, that we find arterial action so very hard to overcome, even in those whose present abstinence is carried sufficiently far. The whole highly oxygenated sanguiferous mass, so long as a drop of it remains, would seem capable of flying to the brain and exciting the heart and arteries to greater action than is desired. The sensorial power of Darwin is the same property as the excitability of Brown. That this animal

agency is secreted in the brain from the arterial blood, and transmitted by the nerves to the most distant parts—even to the fibre most remote and finest in structure—and that its superabundance is the cause of fevers of high arterial action, seems most true. Still, a fire may blaze high from the chimney-top when the fuel lies low in the fire-place. The food that feeds the brain, the heart, the arteries, the secretions, is derived from what is received into the stomach. This organ, therefore, and its downward continuation, is the storehouse of support, and yet the seat of feculency, and remotely the source of fever. The mucus which lines this canal, which is so kindly supplied for the prevention of harm by the ingesta, is continually liable to derange the whole system by its too abundant secretion; and hence the great variety of evacuants, vegetable and mineral, provided for remedying this injurious accumulation.

It is a law stamped upon all epidemic fevers, that the first cases should be the most malignant and mortal. For those are first seized in whom the highest oxygenation of the blood, or its more deleterious failure—in whom the most mucus from diseased glands or membranes, or its dangerous absence—of most bile from a diseased liver, or a failure of bilious secretion—most prevails. The vastly controlling powers of calomel* and antimonials over the whole system has produced their very extensive introduction and use in diseases and diatheses of opposite natures. And hence their adoption in all the states of the system, and in all the disorders just enumerated, although some of them stand in direct contrariety to others. Salivation has cured cases that no other remedy but mercury could allay, nor no other process reach. The artificial disease has neutralized and disarmed the morbid febrile action. But it is not always possible to produce it, and when produced it may overact. We have known a dangerous hemorrhage from the gums to attend it, but never a fatal one. A salivation will sometimes last for four weeks, and in some be produced by a very small quantity of mercury, as six grains of calomel, given in two-grain doses twelve hours apart. The opinion that it is the oxygen in calomel that produces its specific effects, we shall do well to withhold our assent to, until we see a salivation produed by oxygen in some other combination, or by itself alone. Novelties, selected from the thick clouds of conjecture, may please, like the figures of a kaleidoscope, and like them end with no other utility than that of displaying the ingenuity of the inventor. Mere hypothesis, like ice, affords a basis to stand upon while winter lasts, but melts away before the brilliant rays and vernal sun of sound philosophy and mature experience. The labors of visionaries and alchemists, to produce the weight, solidity and splendor of gold, from any other metal, have ever proved abortive.

Notwithstanding the hereditary, constitutional and family predispositions to certain diseases, there may be a succession of seasons which lay a majority of the community under a peculiar influence; and this morbid liability to epidemics may break forth in a state of air and weather which they would not of themselves be able to produce. Although the moon seems to have her regular monthly and yearly phases, exact and precise, yet she only makes her grand cycle once in nineteen years, when she

* The French, however, as a nation, seem to be prejudiced against mercury in fever.

changes and fulls on the same days of the month that she did nineteen years before. Now if she influences diseases, parturition and crises, in her eclipses and shorter cycles, she may influence epidemics in her longer. The doctrine of critical days is denied by Dr. Armstrong. A fatal crisis of a fever seems sometimes, however, to precede the formation of fever itself; as when persons only so little unwell as to still keep about, have suddenly fallen and died in yellow fever. And in spotted fever, and others of great malignity, the same fatality has sometimes been recorded.

The opinion that winter epidemics, such as bilious pneumonia, spotted fever, peripneumonia notha, &c., were caused by summer and autumnal miasm, retained till winter, is unphilosophical; for cities, and other places where miasm was most concentrated, were least affected, if affected at all; whilst the county of Saratoga, N. Y., in 1812, '13, '14, had 4000 cases at least; and other counties in that State, and most country towns in New England in the same years, suffered very extensively from winter epidemics, which besides the names mentioned above, were called typhus gravior, malignant bilious fever, and pneumonia typhoides—titles, all of which point to grades of disease of sombre character.

There seem to be some peculiar symptoms in our winter epidemics, of which I have not found any parallels in the histories of the Old World, or in other fevers of the New.

1. The length of the chilly fit, which sometimes lasted from four to twenty-four, and even to forty-eight hours.

2. An acute and alarming sensation, like the sting of a bee or hornet, in a finger or toe.

3. During this chill, unexampled for its long continuance, the pulse at the wrist was sometimes imperceptible.

4. Bilious matter in such immense quantities, as in winter was before never known; as the bilious secretion, in mischievous abundance, had ever before been in the hot season.

5. Febrile palsy of the limbs, suddenly occurring and continuing for months, and even for years, after the fever, and all its other accompaniments, had entirely ceased.

6. A death-like coldness of the feet, which was most strikingly observable in pneumonic cases.

7. Dimness of sight, and even total blindness, occurred in the practice of others, and in my own. Total loss of sight, sometimes, was the first notice of indisposition.

8. Febrile apoplexy, terminating usually in death. The senses in such cases seemed to be locked up by a loaded tongue, destroying taste; a loaded meatus, preventing the transmission of air to the tympanum; of sound to the hearing ear, of sight to the seeing eye.

9. The commencement of an attack by toothache, was one of the anomalies which occurred, but not very frequently.

10. The pulse was sometimes not accelerated, but even fell below the natural number of beats in health.

11. Unquenchable thirst in a few cases, but no thirst at all in most.

12. Suppression of urine, or rather its total non-secretion.

13. High hysteria in some females, never before denoting the access of a dangerous fever, until the invasion of these epidemics.

14. A sore throat, which sometimes swelled to such an extent as to entirely prevent speech and deglutition. Powdered mustard seed mixed with water and put into the patient's mouth, was found to be the most effectual remedy in such alarming cases.

15. Although a cold stage was sometimes so unprecedentedly long, yet it must be very particularly noticed that a majority of those attacked had no cold stage at all.

16. Death in some instances within three or four hours after the first attack.

17. Bleeding from the pores after death.

Dr. Armstrong, as before noticed, repudiates the existence of critical days. So far as we recollect, he is the first writer of late, who has obtained much celebrity, who has done this. From the time of Hippocrates, they have been recognized, except by a few, but Celsus was one of these. We had supposed that in America, the state of things relating to fever was different from that of Europe and the East—we having so very seldom observed, when we had our eye particularly and repeatedly directed to the subject, *critical days*. It is possible that the ancients and the East did not so closely look into this matter as the moderns and the West. But again, it is possible that the whole world, instead of being a *natural world*, has become an *artificial one*; that art has superseded nature in diet, dress, drinks, dwellings, and other customs and habits, such as the use of tobacco, pepper, spices, tea, coffee, cotton, sugar, political institutions, schools, and other innovations, so as to break up entirely the chain of natural concatenation, and thus to lop off all affinity with those who resided in caves and caverns, ate raw meat, wore their beards, dressed in skins, and yet wrote like Homer and Hippocrates.

In our two great epidemics, yellow fever and spotted fever, and their congeners, there has ever been a diversity worthy of notice. Yellow fever has been connected with cities, ships, shores, wharves, and buildings, near the sea, or tide waters, and with the warm seasons of the year, and has declined and soon ceased as its connection with these locations, and with hot or warm weather, has been cut off. The other, on the contrary, diametrically the reverse, has been the pestilence of the country, of clear cold air, wintry seasons, scattered dwellings, and has generally abated at the appearance of warm weather; and as it came near cities, on the shores of the sea, or tide waters partaking of the qualities of the ocean, has abated or subsided. Coldness was so prevalent a symptom, together with prostration, that *cold plague* and *sinking typhus* were by some adopted as appropriate names of the winter epidemic. Yet it had no laws, no rules, no symptoms, without exception. We had a patient in the month of January (which month that year was unusually cold), a matron of age and experience, and in her senses, who from the extreme heat she felt, continually inclined to throw off her bed-clothes; but after all, she suffered in this respect a deranged sensation, rather than actual increase of temperature. But from whence proceeded this feeling of heat, and from whence those long-continued chills in others, and so surprisingly long?

Mr. Hunter was inclined to refer chills to the state of the stomach. And as cases of bilious pneumonia, or bilious pleurisy, as termed by Dr. Rush, had the longest chills, he may have been correct; for bile does not usually affect the system until it first affects the stomach. "As the hot stage of fever is so constantly preceded by a cold stage, we presume that the latter is the cause of the former; and, therefore, that the cause of the cold stage is the cause of all that follows in the course of the paroxysm; see Boerhaave, Aph. 756."* A knot is more easily cut than untied, and we are still left to find out for ourselves what is the true cause of the *cold stage*. Neither Boerhaave nor Cullen have satisfied the world upon this point. "Facts are golden ore—but principles, gold refined." The sympathy of the system with the stomach is a fact universally known; but the principles upon which it is founded—its causes and consequences—these merit deep inquiry. We have formerly referred to cases of the sudden change of color in its contents after severe injuries—injuries and lesions not of the stomach itself, but of other remote viscera apparently unconnected. And another case now occurs from Mr. Abernethy, of omental hernia, in which vomiting, soon after the operation therefor, ensued, and immense discharges of black fæces on the 5th day succeeding†—the patient having suffered distress at præcordia, want of sleep, and other harassing miseries, until after copious black dejections. Injuries, accidental and artificial, ulcers and surgical operations, are recognized, we may say *resented*, by the stomach. Dr. Cullen, as we have just seen, makes every subsequent symptom of fever to depend upon the cold stage. But what is to be done when there is no cold stage?—that symptom being absent in perhaps two thirds of the cases of fever of all kinds, with the bare exception of intermittents. A very long and severe chill is most commonly succeeded by a severe illness. Still there are cases equally severe, in which the attack is without any ague fit at all. Unquenchable thirst, as when a patient of Dr. Rush, said, "O, I could drink the Delaware," prognosticates ill. Yet there are many cases of fever, and even dangerous cases, in which thirst is absent.

The state of the stomach influences the state, stage, symptoms, length, crisis and recovery, as well as the attack of fever. Its nervous and muscular coats concentrate on that organ those impressions which are first felt, and first complained of, in a person about to be invaded with pyrexia. These are debility in the muscular fibre, loss of energy in the nervous system, and more or less interruption of the secretions and excretions. Hence, the patient complains of lassitude, and has a lessened secretion of saliva, first of all. Even if he has a chilly fit, these are its precedents and precursors, with diminished appetite. In a few cases, both of yellow fever and spotted fever, a deathly crisis has preceded both a chilly fit and the formation of fever—the lassitude and loss of energy in the muscular coat and nerves of the stomach amounting to a partial or total palsy, which from its intimate nervous connection with the head and heart, was rapidly conveyed to these organs of life, and sudden death, without pain, the consequence.

* Vide Dr. Cullen's First Lines, par. 34.

† This patient was purged previous to the operation. This black material must therefore have collected subsequently.

The immensely controlling power of the stomach over the brain, breath and blood, puts us in mind of the opinion of Van Helmont, *that the upper orifice of the stomach was the seat of the soul.* The pathology of fever having such an intimate connection with this viscus, should lead us in all possible ways to ascertain its true state. A furred tongue points to the state of the stomach. But it may be coated when there is little or no fever, from crudities, indigestion, or bile in its cavity. When the tongue is not coated, it may have lost the transparency of its outer covering or cuticle, and have a scaly, a pale, a crimson, or turbid surface.* The first is indicative of great inward heat, or loss of moisture; the pale, of great debility, and poverty of blood; the crimson, of high oxygenation; and the turbid, of dropsy, tumor, ill-oxydated blood, congestion and gangrene. When there is fur on the tongue which *cannot* be scraped off, it denotes an elongation of the papillæ. The fur that *can* be scraped off is a secretion from the papillæ, and denotes that the same kind of secretion disorders, and more or less deranges, the stomach. Every appearance of the tongue is an index pointing to the stomach, although it may sometimes, and often does, point still further. As when the papillæ are elongated it not only denotes that the stomach, but the whole chylopoietic viscera are suffering from such a kind of animal moss or sprouting; and also that the accompanying fever is not to be easily gotten rid of—the solids not being so susceptible of impressions as the fluids; nor the secreting organs, as the secretions. A white tongue, according to Dr. Rush, denotes inflammation. But in order for it so to indicate, the fur must lie close and be very short. For a white tongue, with a loose, raised *pile*, speaks a contrary state of system, and one verging towards aphthæ, and a typhoid diathesis. A dark-yellow coat on the tongue denotes inspissated bile; the healthy color of the latter being a bright yellow, and it may have a darkened hue merely from being thick, and thus denote a diseased state; but not a state of the bile, or of the stomach, or of the system, so highly morbid as when the tongue is black—this last pointing to putrescency in the contents of the stomach, to typhus gravior, or putrid fever, a dissolution of the crasis of the blood, and a highly deranged state of the liver. The bile is sometimes green, a sign of acidity. We have never known it, however, to impart a green color to the tongue, although we have known considerable quantities of green bile vomited in very bad cases of bilious fever. We often have copious alvine evacuations of a black color. But it is very worthy of notice that the patient is generally fatally ill if any substance of this complexion is ejected by vomiting, notwithstanding that vast quantities of it may be thrown off by stool and recovery ensue, nay sometimes be secured. It was the doctrine of Marcard, that the bile might assume any and every color; and we well recollect that a female patient, somewhat advanced in years, in typhus fever, to our great alarm, threw off by vomiting a quantity of it of a claret color, and yet recovered. There were no signs of grume nor specks of blood, nor villi of the stomach, in its composition. But

* That is, a darkish hue without fur—the whole substance of the tongue being thickened from engorgement.

there was a filmy substance ejected with it, as delicate as the pia mater, and of the same claret color as the liquid.*

In one case of very malignant bilious fever, the patient vomited a slimy black matter, and with very great difficulty finally recovered. But this kind of black material is not esteemed so dangerous in yellow fever as the coffee-ground black vomit. This we learn from Dr. Cathrall, of Philadelphia, who mentions the two kinds as occurring in that city in that fever in 1793.

To find out the true state of the tongue, especially in chronic complaints, it should be examined in the morning, before the patient eats, drinks, washes, or even talks much, as from it we are to draw the important conclusion of the existing state of the stomach. The morning urine is also more indicative of a correct diagnosis than that which is evacuated by night or later in the day. As to the pulse, it should be examined morning, noon and night.

ON INJURIES OF THE JOINTS.

[The volume of the Medico-Chirurgical Transactions just published in London, contains a valuable paper by Mr. Alcock on the injuries of joints and their treatment. From a notice of it in the last No. of the British and Foreign Medical Review, we copy the following.]

Mr. Rutherford Alcock's paper is most carefully composed, and the facts and inferences from facts which it contains are apparently derived from extensive experience as a military surgeon. He is guided by safe principles in the views which it is his endeavor to establish, and we recommend the whole paper as worthy of attentive perusal, especially by those who are intended to act as military surgeons. Speaking of the danger of hasty generalization from a few facts, he observes, and the caution cannot be too often repeated:

"In the class of injuries under consideration this danger is especially evident. Many are the extraordinary and most unlooked-for successes attending the treatment of forlorn cases of injured joints. Were general rules or principles of treatment to be founded on these cases, which are but units among thousands giving contrary results, and were no reference made to those greater numbers which enlarged experience shows must perish in vain attempts to save limbs, an immense sacrifice of life and increase of human suffering would inevitably follow."

The following remark respecting the saving of a limb it is well to remember.

"By a limb saved, I do not mean one with the wounds healed, having, nevertheless, the extremity contracted, bent, motionless, or otherwise useless; cases which by a loose kind of phraseology are often termed 'limbs saved.' The object of saving a limb is that it may be useful. If this is not the result, the member, by merely hanging to the body of the patient, is lost in my estimation as truly as if amputated, but with the additional

* Prof. Montanna, of Mexico, tells of matters puked up in spotted fever, of yellow, grey, red, green and black.

circumstance of being converted into a source of misery to the sufferer, an impediment to the free motion of the rest of the body, and often a cause of irremediable ill health. Such cases I hold to be among the worst specimens of bad and injudicious surgery."

In speaking of the excision of the ends of bones when injured by shot, it is considered that this operation is most applicable to the shoulder, elbow, wrist, and ankle; that it is scarcely applicable to the hip and knee; and that it is most likely to be useful when the head of the humerus alone is implicated, and that by a musket ball.

The results at which Mr. Alcock has arrived are the consequences of a careful analysis of about 100 cases of severe injury to joints, the notes of which he had taken with care. Some of these results are presented in tables, these tables containing only the accounts of gun-shot wounds. And it is satisfactory that the author is fully alive to the mistakes into which statistics may, if not very carefully managed, lead us. "If," he says, "*all* the cases of a given period be included, they form sufficient grounds for just conclusions; but if one case be omitted, the whole return is falsified: it may be a death, or a cure, or an amputation; but whatever the termination, its omission alters the legitimate conclusion." We shall endeavor to present to our readers such a brief analysis of Mr. Alcock's paper as may not be without practical interest.

All the injuries of joints are classed under three heads: 1. Where the limb may be saved, and where it should be a principle of practice to attempt this. 2. Doubtful cases, where diagnosis and treatment are difficult, where each case requires its separate consideration; but as they ultimately must require more or less protracted treatment, the same principles adopted for the first apply. 3. Where immediate amputation is required.

In lacerated or incised wounds penetrating the capsule of joints, Mr. Alcock does not think it of so much importance as it is mostly supposed to be, to exclude the air. Light dressings without any compression, cold applications, succeeded, if agreeable to the patient's feelings, by warm-water dressings:

"Or if the joint has assumed a puffy, swelled, and unhealthy appearance, a state often to be traced to the injudicious use of poultices, a more tonic and stimulating mode of dressing will generally cause improvement. Of this kind of dressing, the best seem to me either a decoction of aromatic herbs with the addition of a little wine, or warm camphorated or sweetened wine, which has not been freely adulterated with bad brandy, as are generally most of the wines consumed in England. Such dressing is frequently employed in the rest of Europe, and I have no hesitation in saying that I have seen the happiest effects from its use where more emollient applications, such as poultices, certainly did not arrest, but, on the contrary, appeared to promote the 'engorgement' of the limb."

Pus must be freely evacuated when formed. Great quiet is long necessary. Some motion may be acquired if anchylosis be partial, and some force may be used to effect this; but if anchylosis be complete no attempts of this kind should be made. We would call attention to this last observation respecting the attempts which may be made to restore motion of

anchylozed joints, in connection not alone with gun-shot wounds, but also in reference to the attempts which are now so frequently made to restore the proper position of deformed joints. There is sometimes great carelessness in the choice of cases for these operations, and we have seen partial or nearly complete anchylosis with contracted ham-strings following injury of the joint, in which the attempt to restore mobility disturbed the anchylosis and brought back the morbid action in the joint.

The proportion of injured joints was found to be much less than Mr. Alcock supposed before he took the trouble to keep an accurate account of them; and of all joints none is so frequently injured as the knee. The mortality in all the cases of injured joints is very large indeed, taking into account deaths proceeding from the immediate consequence of injury to the joint itself, and injury proceeding from disease extending to the joint from the part primarily affected.

Mr. Alcock has taken pains to state general results in as clear a manner as possible, because the tendency of many of his observations is to lead to the saving rather than to the amputation of injured limbs. The following observations are important:

"Where the joints were directly involved, the number *treated*, that is to say, in which primary amputation was not performed, amounting to forty-four, present a mortality of twenty-five, considerably more than one half; whereas the primary amputations cause a loss of only one third, although naturally performed for the very worst injuries: and while twelve only were cured without loss of limb, eighteen died in the vain attempt to save, without for the most part offering any fair opportunity of remedying the evil by intermediary or secondary operation. Of the intermediary and secondary amputations, where treatment failing to save the limb amputation offered the only ground of hope for life, seven died out of fourteen, amounting to one half; but of the secondary amputations, properly so called, a fraction less than one half were lost, five in eleven. These cases form the forlorn hope in surgery; all saved are snatched from nearly certain death."

Injuries of the hip are commonly fatal. Of injuries of the shoulder the following satisfactory observations are made:

"The shoulder is rarely implicated directly by injury without a subsequent operation, amputation, or excision of the head of the humerus being required. In eleven, only two were cured without amputation; seven amputations were performed, six primary and one intermediary: the latter was unfortunate in its result; all the primary recovered."

We have already stated that injuries of the knee are most frequent, and excepting those of the hip, most fatal to life. Of 35 cases of injury of the knee, 22 died, and of the remaining 13 who were saved, 8 lost their legs. Injuries of the elbow are next in order of frequency; their fatality is in the proportion of 5 to 19. Frequently, it is remarked, that although divers injuries happen in the neighborhood of joints, comminuting the bones and producing extensive ill effects, the joints themselves are comparatively little affected, but are useful afterwards. Of 43 fatal cases, the deaths are thus arranged: 23 died under treatment for the original injury; 4 after intermediary amputation; 5 after secondary am-

putation; 11 after primary amputation. Of the first 23, half died, chiefly from hectic; the other half "from supervening irregular actions, such as mortification, delirium tremens, tetanus, affections of the chest complicating the hectic state; from accidental occurrences, such as secondary hemorrhage, and from other complicating wounds." Mr. Alcock has not found in his own experience that in these cases there is any particular tendency to purulent depositions in other organs or parts of the body; and when these have taken place it has been in the majority of cases when amputation has been performed after injuries, where "the two shocks of the injury and the operation combine to produce this fatal effect."

On the recapitulation or summary of the facts related, Mr. Alcock remarks:

"The chief danger and cause of death in cases treated to the end without operation, is hectic fever, and a variety of accidental or irregular complications, such as secondary hemorrhage, epidemics, erysipelas, gangrene, &c., combined, form the remaining half. The cases in which amputation is performed in the first instance, with fatal result, present a very different cause of mortality: the chief agent being purulent disease of lungs or liver, and occasionally inflammatory affections of the lungs or pleura. Fevers, irritative or bilious, destroy more than one third. The deaths after intermediary amputations are chiefly caused by febrile action, irritative or bilious, and in secondary amputations, the shock of the operations, hectic and some accidental complications carry off the patients, already much reduced by suffering and the long continuance of wasting discharge. The results of secondary amputations when fatal, and their causes of mortality, are in some degree assimilated to those predominant in cases treated to the end without operation."

EFFECTS OF FRIGHT ON THE CATAMENIA.

To the Editor of the Boston Medical and Surgical Journal.

Sir,—E. C., aged 19 years, applied to me under the following circumstances. In ——, 1840, she was, after a rather severe labor, delivered of a dead fœtus. The accoucheur in attendance gave it as his opinion that the child had been dead five or six weeks. Her recovery was slow and imperfect. There is great loss of muscular power. Moderate exercise produces a good deal of disturbance in the function of respiration; appetite almost abolished, and the catamenia have not appeared since her accouchement; countenance very sallow, but not much emaciation. Nine months having nearly elapsed since her confinement, without any return of the catamenia, this circumstance of course demanded my attention. But as there was evidently much derangement of the digestive organs, I endeavored to bring them into a better state, previous to the adoption of more direct measures for the return of the menstrual discharge. Purgatives brought away large quantities of the trichurus—at least from *her* description the worms were of that species, for I did not see them. The appetite improved to some extent, and now phosphate of iron, combined

with aloes, seemed to produce a marked and daily improvement. After some weeks of this course, a novel therapeutic agent stepped in, and completed the object rather suddenly. An individual, in a mask, suddenly presented herself to the patient, and in the moment of terror produced by the sudden and grotesque apparition, the long-suppressed catamenia began to flow.

Now, would the same agency have produced the same effects a month previous, or before medical treatment was commenced? Or was the favorable change in the state of the system, essential to the specific effect produced by the sudden start? Or is there any way in which we may avail ourselves of the fact, in order to produce a similar result in certain cases by a sudden shock applied to the nervous system? Say, for instance, a powerful shock of electricity or galvanism passed through the uterine region? In one case, now in my recollection, a moderate electrical shock produced sudden abortion. We know that terror produces extreme atony throughout the whole system, as the loss of muscular power and involuntary discharges abundantly prove. Are not the uterine vessels generally congested in amenorrhœa? But I am beginning to theorize, and must check myself. I merely throw out these hints, which some other practitioner may improve and modify. Yours very truly,

Bradford, N. H., May 23d. Y. S.

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IODINE AND ITS COMPOUNDS.

For some years iodine has been a favorite medicine, although physicians have not uniformly been successful in its administration to the extent they were led to anticipate when it was first introduced. Within a week or two we have been put in possession of a treatise bearing the following title, viz.: "*An Experimental Essay on the relative physiological and medicinal properties of Iodine and its compounds—being the Harveian Prize Dissertation for* 1837, *at Edinburgh. By Charles Cogswell, M.D.,*" now a resident of Halifax, Nova Scotia. This treatise covers the whole ground, and seems to leave nothing unfinished calculated to throw light on the influence which this singular agent of nature exerts. The author has not only made himself familiarly acquainted with the knowledge of those who had preceded him, but outstrips them in the boldness and novelty of his experiments. "There are two doctrines regarding the manner in which the agency of iodine on the living body is effected by chemical union," says Dr. Cogswell, "which seems to divide the medical world at present. Some are of opinion that iodine and its compounds all follow essentially the same line of action—that is to say, that when iodine is indicated, it is a matter of indifference which of these drugs is exhibited; while, on the other side, we find it maintained that the com-

pounds in question combine the properties of the substance united to the iodine, with those of this substance, and operate accordingly."

A history of its original discovery by Courtois, in 1812, with subsequent examination of its properties by a succession of European chemists, is not called for here; it is material, however, since it has become a prominent article both in the shop and in the prescriptions of practitioners, to ascertain, as far as possible, whether it is really of utility or not. In large doses as well as in small, iodine has performed wonders: hence the more difficulty in ascertaining precisely how it should be used. Three drachms of the tincture produced no effect. Dr. Kennedy, within eighty days, gave nine hundred and fifty-three grains in the form of tincture. This must be sad intelligence to the new-school physicians, who would hardly require so much to drug, most amply, the entire population of the globe. One thousand and nineteen grains were given a female laboring under cancer of the breast—the doses at certain periods amounting to thirty grains every twenty-four hours! All this while, let it be kept in mind, that iodine is a powerful article, for good or for evil. Its action on the nervous system, on the air passages, the salivary glands, the liver and spleen, the generative system, the kidneys, the skin, the nutritive system, &c., are so uncertain in different individuals, that we are losing much of the respect for iodine which we once had—and this has resulted in some measure from reading Dr. Cogswell's own experiments, and the testimony accumulated by his industry from all creditable sources.

With regard to its cumulative character, Dr. C. has displayed a commendable zeal in ascertaining the observations and experience of others. D. Coindet believed that iodine saturated the economy before displaying its action; yet this view is not warranted by the remarks of American practitioners in a way to give importance to the subject. All the diseases to which man is incident, at times appear to have been influenced by this leviathan in the hands of different practitioners. Still, we are compelled to acknowledge, from all that can be gathered, that so far from being a specific remedy in the cure of any of them, it is quite as uncertain as any in the catalogue of medicines. If it produces decided appreciable effects anywhere, it is in diseased glands; and although formidable enlargements do not invariably yield to an external or internal application of iodine, very marked changes have been effected through its potency.

That iodine and its various compounds act with more efficiency in some latitudes than in others, cannot be doubted. Here at the North the results have been very encouraging in the reduction of scrofulous enlargements about the neck, mammary tumors, &c.; while at the South, the same results have not taken place under the watchful attendance of physicians most thoroughly conversant with the mode of bringing the system under its influence. Southern residents, however, on visiting those medicinal springs which are impregnated with iodine at the North, derive essential benefit from them. This circumstance shows that there is a control ling influence, in this respect, in climate.

Dr. Cogswell's essay contains a large mass of information in a compact form, which we wish might be freely circulated in this country. It has not, however, been re-printed in the United States. From an examination of the leading facts, based principally on the author's experiments, not to speak of the collateral testimony adduced from other channels, we think it will have considerable influence in bringing about a change in the general opinion respecting this article.

Dr. Cogswell must do something more, after having written so acceptably; his readers and friends will not consent to have so bright a light concealed under a bushel.

Medical Students in Connecticut.—From a careful estimate it appears that, previous to the year 1840, the number of medical students in Connecticut had been gradually diminishing for several years, so that during the last three years the number was less than half the average for the twenty preceding years. This fact is attributable to various causes, but chiefly to the prevailing spirit of speculation, or haste to become rich, which has engaged an unusual proportion of the young men in mercantile pursuits, and large manufacturing operations, while it has drawn away many others to "the West," to Texas, &c. This speculating spirit having received a check, the number of medical students is again increasing. The class in the Medical Institution of Yale College was larger last winter than for the three years preceding; and there is reason to believe that the class next season will be considerably larger. Few young men go out of that State for a medical education, and the medical institution draws a considerable proportion of its students from other States; but the whole number graduated and licensed at the Institution, of late years, has been less than the number lost from the ranks of the profession in the State, by death and other causes, within the same period. In all the New England States, and perhaps in other parts of the country, a diminished number of medical students has of late been noticed; and if this decrease was generally proportionate to that in Connecticut, there would soon be an inadequate supply of physicians throughout the country.

Library of Practical Medicine.—Another of those beautiful volumes, of which frequent notice has been given, from the press of Lea and Blanchard, has made its appearance, Americanized by Dr. Gerhard, of Philadelphia. The present number concludes the series to which it belongs, making the fifth volume of the *Library of Practical Medicine*—an enterprise honorable to the country. Something must be done by the medical profession towards maintaining this spirited feeling on the part of publishers, or they will by-and-by begin to count the cost—and the loss too. These treatises, says the advertisement of our Philadelphia contemporary, "form the most complete practice of medicine now extant—at least, in the English language: they are brought up to the present state of our knowledge on each subject; and, with the exception of the first volume, have been revised by the American editor, who has made additions to such parts as appeared least complete." If any gentleman in the vicinity wishes to make himself conversant with the general character of this excellent Library, without being obliged to purchase till he ascertains its intrinsic value, we invite him to call and look at ours.

Dissertations on hæmorrhages, dropsies, rheumatism, gout, scrofula, &c., &c., by Drs. Burrows, Budd, Watson, Shapter, Rowland, Farre and Joy, constitute the fifth volume, which is heartily recommended to the careful study of all who acknowledge the important responsibilities that devolve upon a general practitioner of medicine.

A system of midwifery, accompanied by numerous cuts, is to be forthcoming some time in July, from the same publishing house, of which much may be reasonably expected.

Stewart on the Diseases of Children.—Since the general synoptical notice, two weeks since, of Dr. Stewart's new production, we have had an opportunity of examining it more critically, and we are happy to say, with renewed pleasure and confidence. The author seems to have weighed each subject with that carefulness which the importance of the undertaking required. Our very best practitioners acknowledge that to manage the various diseases to which children are incident, successfully, is infinitely more difficult than any other department of professional service. A treatise like this, from such a source, must therefore be of great value to the profession.

Dr. Harris's System of Dentistry.—A stranger called in the other day for a copy of this useful book, and expressed his astonishment because one could not be found at a book-store in Boston. A principal object in chronicling the circumstance, is to induce those who may have the control of the work, to place it in this market, which is really the central depot in the northern States for all scientific productions.

A New Medical Gazette.—A New-York correspondent informs us that the *New York Journal of Medicine and Surgery*, a quarterly publication, four volumes of which have been published, and which was really an exceedingly well-conducted one, is dead, and that an effort is now making to issue a new weekly medical paper, to be called the *New York Medical Gazette.* Knowing something of the tact and talents of one of the gentlemen who is identified with the projected enterprise, we are sure if it fails, it will be for a lack of subscribers, and not because he is incompetent in any department of science or literature.

Medical Competition.—In the extra circular of the Transylvania University, it is stated that the novel plan of advertising a vacant chair in the medical department brought into the field seventeen applicants, from eight different States. The difficulty of making a selection was augmented exceedingly, by the number and character of the applicants. No one could have afforded the prospect of more enduring influence on the reputation of the Lexington school of medicine, than the man finally selected by the Trustees.

Insane Persons in the United States.—By the census returns of 1841 at the department of State, it appears that the number of insane persons and idiots in the U. States, is 17,181. The population being 17,013,379, there is one case of insanity for every 990 inhabitants. To meet the wants of this unfortunate class, there are only sixteen hospitals. Thirty, at least, are wanted for their comfortable accommodation.

Extraordinary Dentition.—A negress, living near Charlottesville, at the great age of one hundred and thirteen years, is now cutting a third set of teeth—three of which, white and beautiful incisors, are well developed. This is by no means a solitary example of the kind: very many parallel cases are on medical record in all countries. It seems like an attempt of the vital forces to re-construct or thoroughly repair a nearly

worn-out machine, but it is usually the precursor of death, as the activity of the system to produce even a partial restoration, exhausts the fountains of life.

Stone in the Tonsils. By Dr. Wiesner, of Heydekrug.—A man 76 years old had for 7 years suffered from inflammation and swelling of the right tonsil. The affection was palliated by the means that were employed, but it often appeared again at different times after being heated and chilled, and at last a hardness of the tonsil remained, which gradually increased, becoming uneven and knotty to the touch, and on the slightest contact causing severe pain, and rendering it difficult to swallow.

One morning, full seven years after the first discovery of the angina tonsillaris, the patient on waking had, on attempting to eject some mucus that was collected in his mouth, felt a loose body in it, and drew out with his fingers a porous stone, like a urinary calculus, and as big as two hazel nuts. No bleeding occurred, and the opening in the tonsil soon closed after using an astringent gargle; at a later period, however, an inflammatory swelling of the left tonsil took place, and presented every appearance of a stone being in process of formation there.—*Brit. & For. Med Review.*

Married,—In Geneva, N. Y., on the 16th inst., G. Conger, M.D., of Henderson, Ill., to Miss Elizabeth M. Field, of the former place.

Died,—At Monrovia, Africa, Feb. 3d, Dr. W. H. Taylor, of the missionary service.

Number of deaths in Boston for the week ending June 19, 27.—Males, 16; Females, 11. Stillborn, 3.
Of consumption, 5—drowned, 2—old age, 1—dropsy in the head, 2—disease of the heart, 1—smallpox, 3—pleurisy, 1—measles, 2—dropsy, 2—infantile, 2—intemperance, 1—lung fever, 2—scarlet fever, 1—dropsy on the brain, 1—unknown, 1.

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